



Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1 of 12

Complete If Known	
Application Number	10/666,034
Filing Date	September 18, 2003
First Named Inventor	Kocon, Christopher Boguslaw
Art Unit	2814
Examiner Name	Long Pham
Attorney Docket Number	018865-009010US

## U.S. PATENT DOCUMENTS+

Examiner Initials	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
L P	1	US-3,404,295	10-01-1968	Warner et al.	
	2	US-3,412,297	11-19-1968	Amlinger	
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	4	US-3,564,356	02-16-1971	Wilson	
	5	US-3,660,697	05-02-1972	Berglund et al.	
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	7	US-4,300,150	11-10-1981	Colak	
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	10	US-4,345,265	08-17-1982	Blanchard	
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	14	US-4,638,344	01-20-1987	Cardwell, Jr.	
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	21	US-4,801,986	01-31-1989	Chang et al.	
	22	US-4,821,095	04-11-1989	Temple	
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Sheet	2	of	12	Attorney Docket Number	018865-009010US

U.S. PATENT DOCUMENTS+					
Examiner Initials	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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	84	US-5,597,765	01-28-1997	Yilmaz et al.	
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	93	US-5,656,843	08-12-1997	Goodyear et al.	
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	193	US-6,281,547	08-28-2001	So et al.
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	198	US-6,297,534	10-02-2001	Kawaguchi et al.
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	202	US-6,313,482	11-06-2001	Baliga
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	208	US-6,351,018	02-26-2002	Sapp	
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	210	US-6,359,308	03-19-2002	Hijzen et al.	
	211	US-6,362,112	03-26-2002	Hamerski	
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	215	US-6,368,920	04-09-2002	Beason	
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	235	US-6,472,678	10-29-2002	Hshieh et al.	
	236	US-6,475,884	11-05-2002	Hshieh et al.	
	237	US-6,476,443	11-05-2002	Kinzer	
	238	US-6,479,352	11-12-2002	Blanchard	
	239	US-6,489,652 B1	12-03-2002	Jeon et al.	
	240	US-6,501,146	12-31-2002	Harada	
	241	US-6,566,804	05-20-2003	Trujillo et al.	
	242	US-6,580,123	06-17-2003	Thapar	
	243	US-6,608,350	08-27-2003	Kinzer et al.	
	244	US-6,677,641	01-13-2004	Kocon	
	245	US-2001/0023961 A1	09-27-2001	Hsieh et al.	
	246	US-2001/0028083 A1	10-11-2001	Onishi et al.	

Examiner Signature	Long Pham	Date Considered	H22/0J
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Substitute for Form 1449A/PTO		<i>Complete If Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>		Application Number	10/666,034
		Filing Date	September 18, 2003
		First Named Inventor	Kocon, Christopher Boguslaw
		Art Unit	2814
		Examiner Name	Long Pham
Sheet	7	of	12
		Attorney Docket Number	
		018865-009010US	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>2</sup>	Number <sup>3</sup>	Kind Code <sup>4</sup> (if known)			
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	261	DE	19736981	A1	08-20-1998	Mitsubishi Denki	<input checked="" type="checkbox"/>
	262	EP	0747967	B1	02-27-2002	ST Microelectronics Inc.	<input type="checkbox"/>
	263	EP	0975024	A2	01-02-2000	Fuji Electric Co. LTD.	<input type="checkbox"/>
	264	EP	1026749	A1	08-09-2000	Mitsubishi Denki Kabushiki	<input type="checkbox"/>
	265	EP	1054451	A2	11-22-2000	Intersil Corporation	<input type="checkbox"/>
	266	EP	1205980	A1	05-15-2002	Infineon Technologies AG	<input type="checkbox"/>
V	267	JP	01-192174	A	08-02-1989	Hitachi LTD.	<input checked="" type="checkbox"/>
	268	JP	05-226638	A	09-03-1993	Wakatabe et al.	<input checked="" type="checkbox"/>

Examiner Signature	Long Pham	Date Considered	4/22/05
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	269	JP	56-058267	A	Nippon Teleg & Teleph Corp.	<input checked="" type="checkbox"/>
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	271	JP	63-186475		Nissan Motor Co. LTD.	<input checked="" type="checkbox"/>
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	278	JP	2000-277728	A	NEC Kansai LTD.	<input checked="" type="checkbox"/>
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	281	JP	2001-102577	A	Toshiba Corp.	<input checked="" type="checkbox"/>
	282	JP	2001-111041	A	Fuji Electric Co. LTD.	<input checked="" type="checkbox"/>
	283	JP	2001-135819	A	Fuji Electric Co. LTD.	<input checked="" type="checkbox"/>
	284	JP	2001-144292	A	Denso Corp.	<input checked="" type="checkbox"/>
	285	JP	2001-244461	A	Toyota Central Res & Dev Lab INC.	<input checked="" type="checkbox"/>
	286	JP	2001-313391	A	S. Takahiro et al.	<input checked="" type="checkbox"/>
	287	JP	2002-083976	A	Naito et al.	<input checked="" type="checkbox"/>
	288	PCT	WO 00/33386	A2	Koninklijke Philips Electronics	<input type="checkbox"/>
	289	PCT	WO 00/68997	A1	C.P. Clare Corporation	<input type="checkbox"/>
	290	PCT	WO 00/68998	A1	C.P. Clare Corporation	<input type="checkbox"/>
	291	PCT	WO 00/75965	A2	General Semiconductor, Inc.	<input type="checkbox"/>
	292	PCT	WO 01/06550	A1	Koninklijke Philips Electronics	<input type="checkbox"/>
	293	PCT	WO 01/06557	A1	Koninklijke Philips Electronics	<input type="checkbox"/>
	294	PCT	WO 01/45155	A1	Koninklijke Philips Electronics	<input type="checkbox"/>
	295	PCT	WO 01/59847	A2	Koninklijke Philips Electronics	<input type="checkbox"/>
	296	PCT	WO 01/71815		Koninklijke Philips Electronics	<input type="checkbox"/>
	297	PCT	WO 01/95385	A1	General Semiconductor, Inc.	<input type="checkbox"/>

Examiner Signature	Long Pham	Date Considered	7/22/05
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Substitute for form 1449A/PTO				<i>Complete If Known</i>	
				Application Number	10/666,034
				Filing Date	September 18, 2003
				First Named Inventor	Kocon, Christopher Boguslaw
				Art Unit	2814
				Examiner Name	Long Pham
Sheet	9	of	12	Attorney Docket Number	018865-009010US

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		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
L-P	298	PCT	WO 01/95398	A1	12-13-2001	General Semiconductor, Inc.		<input type="checkbox"/>
	299	PCT	WO 02/01644	A2	01-03-2002	Silicon Wireless Corporation		<input type="checkbox"/>
↓	300	PCT	WO 02/047171	A1	06-13-2002	International Rectifier Corporation		<input type="checkbox"/>
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number	10/666,034
(use as many sheets as necessary)				Filing Date	September 18, 2003
				First Named Inventor	Kocon, Christopher Boguslaw
				Art Unit	2814
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b	301	BAI et al., "Novel automated optimization of power MOSFET for 12V input, high-frequency DC-DC converter," <i>International Symposium on Power Semiconductors and ICs, Technical Digest</i> , (2003), pp. 366-369.			
	302	BALIGA "New Concepts in Power Rectifiers," Physics of Semiconductor Devices, Proceedings of the Third Int'l Workshop, Madras (India), Committee on Science and Technology in Developing Countries (1985), pp. 471-481.			
	303	BALIGA "Options for CVD of Dielectrics Include Low-k Materials," Technical Literature from Semiconductor International, June 1998, 4 pages total.			
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V	316	GLENN et al. "A Novel Vertical Deep Trench RESURF DMOS (VTR-DMOS)" <i>IEEE ISPD 2000</i> , May 22-25, Toulouse France, pp. 197-200.			

Examiner Signature	Long Pham	Date Considered	8/22/05
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R P	317	"IR develops CoolMOS™ -equivalent technology, positions it at the top of a 3-tiered line of new products for SMPS," International Rectifiers company information available at <a href="http://www.irf.com">http://www.irf.com</a> (1999) 3 pages total.		
	318	KAO et al. "Two Dimensional Thermal Oxidation of Silicon-I. Experiments," <u>IEEE Transactions on Electron Devices</u> , Vol. ED-34, No. 5, May 1987, pp. 1008-1017.		
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	325	MOGHADAM "Delivering Value Around New Industry Paradigms," Technical Literature from Applied Materials, pages 1-11, Volume 1, Issue 2, November 1999.		
	326	PARK et al., "Lateral Trench Gate Super-Junction SOI-LDMOSFETs with Low On-Resistance," Institute for Microelectronics, University of Technology Vienna, Austria (2002), pp. 283-285.		
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	328	SHENAI et al., "Current transport mechanisms in atomically abrupt metal-semiconductor interfaces," (April 1988) <u>IEEE Transactions on Electron Devices</u> , Vol. 35, No. 4, pp. 468-482.		
	329	SHENAI et al., "Monolithically integrated power MOSFET and schottky diode with improved reverse recovery characteristics," (April 1990) <u>IEEE Transactions on Electron Devices</u> , Vol. 37, No. 4, pp. 1167-1169.		
	330	SHENOY et al."Analysis of the Effect of Charge Imbalance on the Static and Dynamic Characteristic of the Super Junction MOSFET," <u>IEEE International Symposium on Power Semiconductor Devices</u> 1999, pp. 99-102 (1999).		
	331	SINGER "Empty Spaces in Silicon (ESS): An Alternative to SOI," <u>Semiconductor International</u> page 42, December 1999.		
✓	332	TABISZ et al., "A MOSFET resonant synchronous rectifier for high-frequency dc/dc converters," (1990) <u>Proc. IEEE Power Electronics Specialist Conf. (PESC)</u> , pp. 769-779.		

Examiner Signature	Long Pham	Date Considered	7/22/05
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L P	333	Technical Literature from Quester Technology, Model APT-4300 300mm Atmospheric TEOS/Ozone CVD System, (unknown date), 3 pages total.		
	334	Technical Literature from Quester Technology, Model APT-6000 Atmospheric TEOS-Ozone CVD System, (unknown date), 2 pages total.		
	335	Technical Literature from Silicon Valley Group Thermal Systems, APNext, High Throughput APCVD Cluster Tool for 200 mm/300 mm Wafer Processing, (unknown date), 2 pages total.		
	336	TU et al. "On the reverse blocking characteristics of schottky power diodes," (December 1992) <i>IEEE Transactions on Electron Devices</i> . Vol. 39, No. 12, pp. 2813-2814 2 pages total.		
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↓	340	YAMASHITA et al., "Conduction Power loss in MOSFET synchronous rectifier with parallel-connected schottky barrier diode, (July 1998) <i>IEEE Transactions on Power electronics</i> , Vol. 13, No. 4, pp. 667-673.		

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